

Fig. 1

	Comparative									Comparative		Comparative		Comparative	
	Ex. 1	Ex. 2	Ex. 3	Ex. 4	Ex. 5	Ex. 6	Ex. 7	Ex. 8	Ex. 9	Ex. 1	Ex. 2	Ex. 3	Ex. 4	Ex. 5	Ex. 6
Base Materials	Ethylene glycol	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
	Propylene glycol	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Glycerol	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Ion exchanged water	48.90	49.655	49.90	49.95	49.90	49.50	49.90	49.90	46.78	50.00	50.00	50.00	50.00	100.00
	Tap water	-	-	-	-	-	-	-	-	-	-	-	-	100.00	-
	Quercetin	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-
	Glucose (Grape sugar)	-	-	-	-	0.10	-	-	-	-	-	-	-	-	-
	Maltose (Malt sugar)	-	-	-	-	-	0.10	0.50	-	-	-	-	-	-	-
	Alkyl glucoside	-	-	-	-	-	-	-	0.10	-	-	-	-	-	-
	POE sorbitan monopalmitate	-	-	-	-	-	-	-	-	0.10	-	-	-	-	-
Additives															
Ortho-phosphoric acid															
Phosphonoic acid	-	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzotriazole	-	-	0.10	-	-	-	-	-	-	0.10	-	-	-	-	-
Sodium nitrate	-	-	-	-	-	-	-	-	-	0.10	-	-	-	-	-
Sodium molybdate	-	-	-	-	-	-	-	-	-	0.20	-	-	-	-	-
Sodium benzoate	-	-	-	-	-	-	-	-	-	2.50	-	-	-	-	-
Sodium hydroxide	-	-	-	-	-	-	-	-	-	0.12	-	-	-	-	-
Hydrogen ion exponent (pH)	8.1	8.1	6.2	7~8	7~8	7~8	7~8	7~8	7.3	6.8	6.8	6.8	6~7	6~7	6~7

Fig. 2

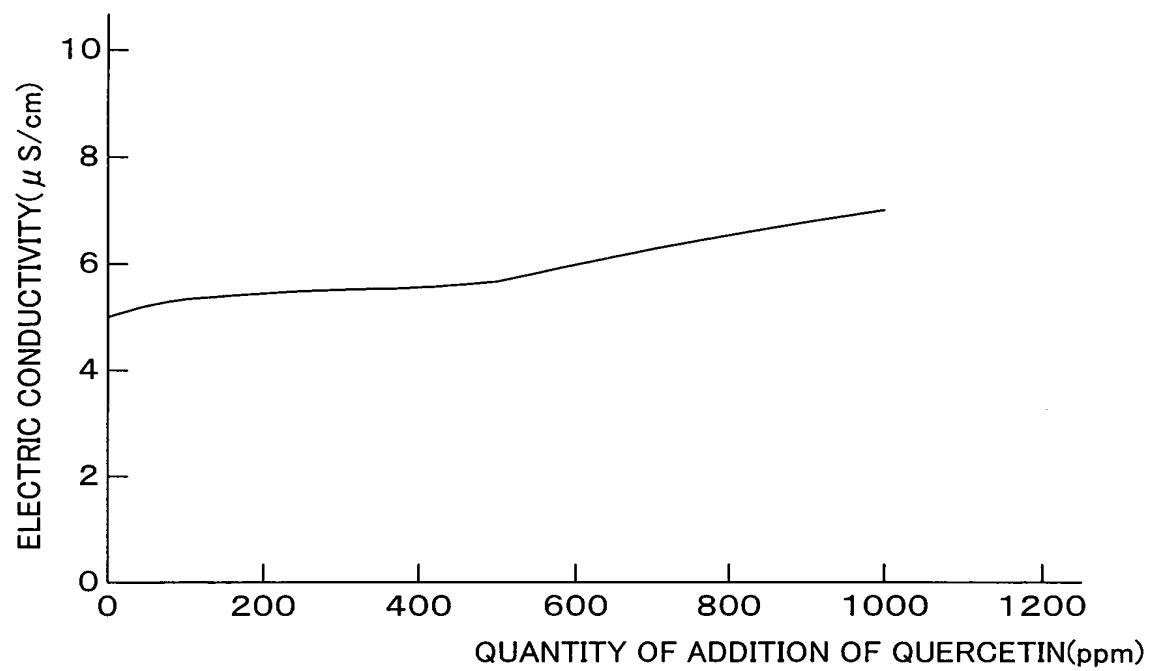
	Ex. 1	Ex. 2	Ex. 3	Ex. 4	Ex. 5	Ex. 6	Ex. 7	Ex. 8	Ex. 9	Comparative Ex. 1					
Electric conductivity ($\mu \text{ S/cm}$)	290	5.0	2.1	5.3	3.6	3.5	5.0	3.2	4.4	5950	3.5	1.6	1.8	286	0.88
Metal corrosion resistance Air	0.01	-0.04	0.04	-0.02	-0.03	0.00	-	-	-0.02	-0.12	-0.12	-	-	-0.52	0.10
n=2 Quantity of corrosion of Al(mg/cm^2)	-0.01	-0.04	0.15	0.01	-0.02	-0.01	-0.02	-	-	-0.03	-0.10	-0.09	-	-0.43	0.10
Metal corrosion resistance N ₂ Air(mg/cm^2)	0.00	-	0.04	-	-	-	-	-	-	-	-	0.02	-	-	-
n=2 Quantity of corrosion of Al(mg/cm^2)	-0.01	-	0.05	-	-	-	-	-	-	-	-	0.04	-	-	-
Passivation current density N ₂ ($\mu \text{ A/cm}^2$)	4.8	11	2.4	(7)	(15)	(16)	(16)	(60)	(80)	3.0	(100)	(100)	(100)	76	-
Passivation current density Air ($\mu \text{ A/cm}^2$)	2.4	12	2.4	-	-	-	-	-	-	3.0	2.0	1.3	-	210	-
Freezing point ($^{\circ}\text{C}$)	-35	-35	-35	-35	-35	-35	-35	-35	-35	-35	-35	-35	-	0	0

PF14F48*

10049816

10049816 10/1049816

Fig. 3



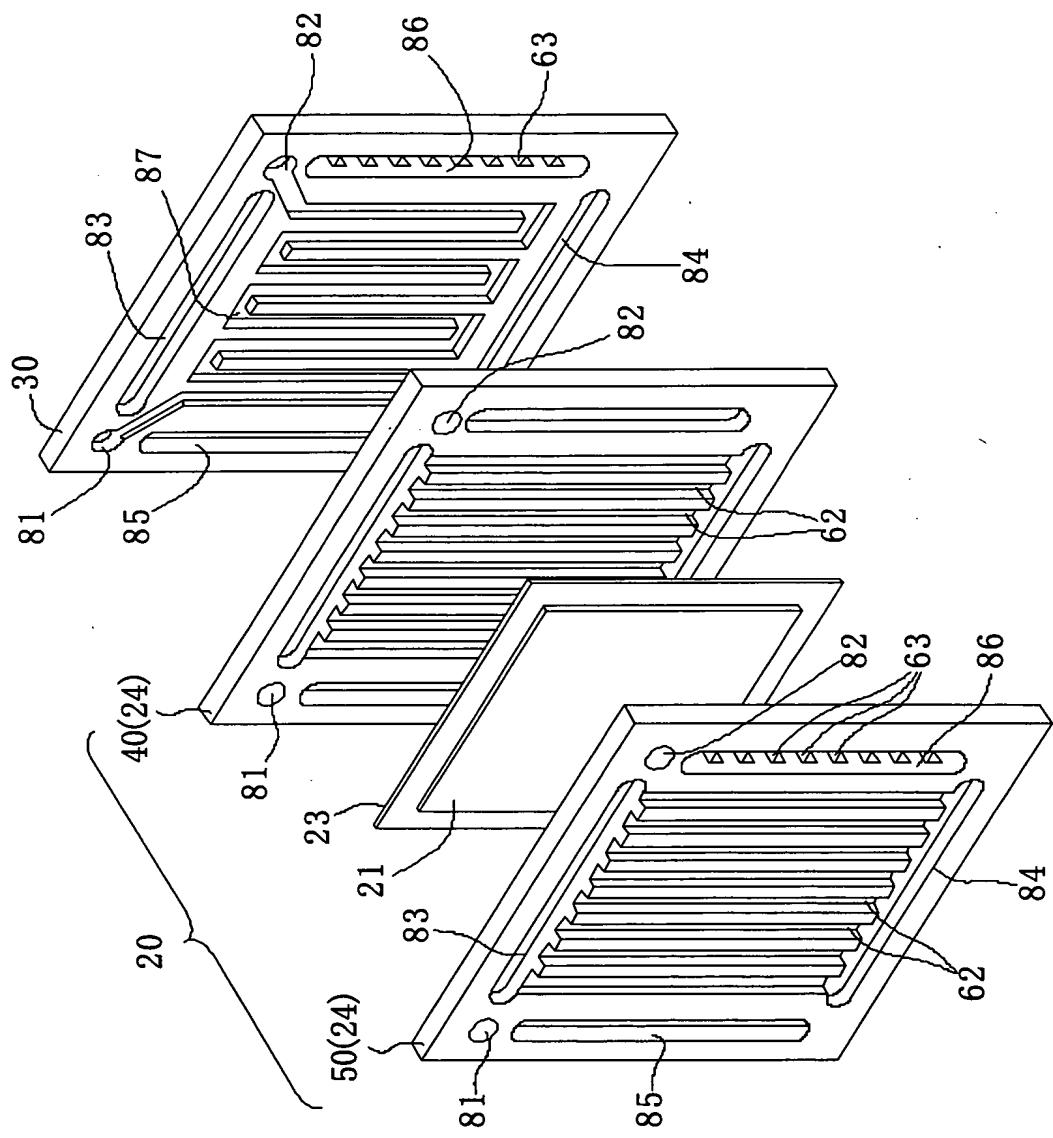


Fig. 4

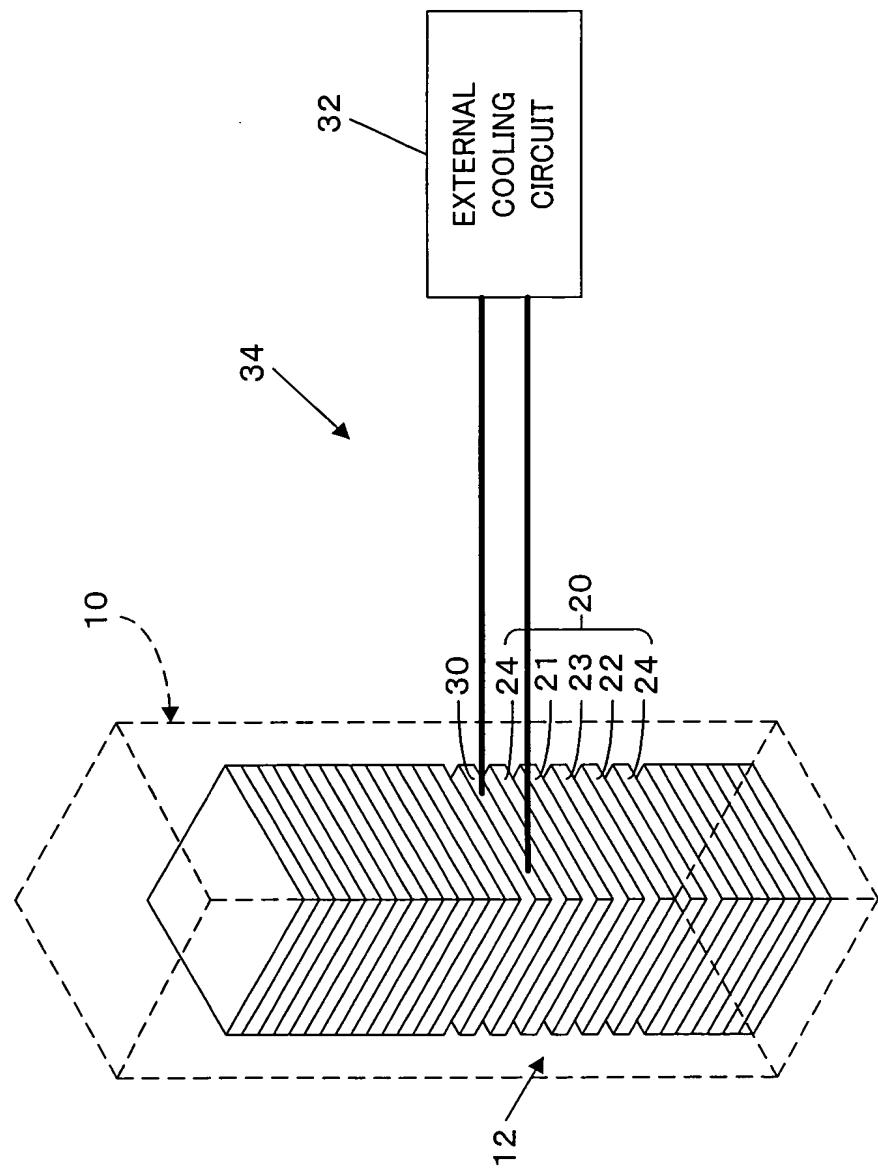


Fig. 5

Fig. 6

